II. CLAIM AMENDMENTS

1-39. Cancelled

40. (Previously Presented) A method of encoding a digital image comprising a plurality of image blocks, the method comprising:

decoding a first encoded image block;

performing a filtering operation across a block boundary between the first decoded image block and a previously decoded image block adjacent to the first decoded image block such that the pixel value of at least one decoded pixel in the first decoded image block is modified by the filtering operation; and

performing a prediction for at least one pixel value of a second block, the second block adjacent to the first decoded image block, wherein the prediction is performed based on the modified pixel value of the first decoded image block by the filtering operation.

41. (Cancelled)

42. (Currently Amended) A method according to ~~claim 41~~claim 40, wherein the decoding of the first image block comprises performing motion compensated prediction with respect to a reference image.

43. (Cancelled)

44. (Previously Presented) A method according to claim 40, wherein decoding of the first encoded image block comprises performing prediction with reference to a previously decoded image block adjacent to the first block.

45. (Previously Presented) A method according to claim 40, wherein the filtering operation across the boundary between the first decoded image block and the

previously decoded image block is performed immediately after the first image block is decoded.

46. (Previously Presented) A method according to claim 40, wherein filtering operation across the boundary between the first decoded image block and a previously decoded image block adjacent to the first decoded image block is performed before performing the prediction for the second block.

47. (Previously Presented) A method according to claim 40, wherein filtering is performed due to more than one boundary between the first decoded image block and previously decoded image blocks adjacent to the first decoded image block.

48. (Previously Presented) A method according to claim 47, wherein filtering due to more than one boundary is performed sequentially on more than one boundary in a certain boundary scanning order.

49. (Previously Presented) A method according to claim 48, wherein the order of filtering boundaries is selected such that a boundary to the left of the first decoded image block is filtered before a boundary to the top of the first decoded image block.

50.-51. (Cancelled).

52. (Previously Presented) A method according to claim 40, wherein image blocks, are grouped into macroblocks, and filtering is performed macroblock by macroblock according to a certain macroblock scanning order.

53. (Cancelled).

54. (Previously Presented) A method according to claim 52, wherein filtering is performed for all boundaries within a macroblock before filtering to reduce visual artifacts is performed within the next macroblock in the macroblock scanning order.

55. (Previously Presented) A method according to claim 40, wherein the digital image comprises a plurality of segments of image blocks and only boundaries between adjacent decoded image blocks that belong to the same segment are filtered.

56.-57. (Cancelled).

58. (Previously Presented) An encoder for encoding a digital image comprising a plurality of image blocks, the encoder configured to:

encode a first image block to form a first encoded image block;

decode the first encoded image block to form a first decoded image block;

the encoder comprising a filter arranged to perform a filtering operation across a block boundary between the first decoded image block and a previously decoded image block adjacent to the first decoded image block, such that a pixel value of at least one decoded pixel in the first decoded image block is modified by the filtering operation; and

the encoder further configured to perform a prediction for at least one pixel value of a second block, the second block adjacent to the first decoded image block, wherein the prediction is performed based on the modified pixel value of the first block by the filtering operation.

59. (Previously Presented) An encoder according to claim 58, wherein the encoder is configured to encode the first image block by performing motion compensated prediction with respect to a reference image.

60. (Previously Presented) An encoder according to claim 58, wherein the encoder is configured to encode the first image block by performing prediction with reference to a previously encoded image block adjacent to the first block.

61. (Previously Presented) An encoder according to claim 58, wherein the filter is arranged to operate immediately after the first image block is decoded.

62. (Previously Presented) An encoder according to claim 58, wherein the filter is arranged to operate due to more than one boundary between the first decoded image block and previously decoded image blocks adjacent to the first decoded image block.

63. (Previously Presented) An encoder according to claim 62, wherein the filter is arranged to operate due to more than one boundary by filtering the boundaries sequentially in a certain boundary scanning order.

64. (Previously Presented) An encoder according to claim 58, wherein the filter is arranged to use the modified pixel value due to at least one other boundary between decoded image blocks.

65. (Previously Presented) An encoder according to claim 58, wherein image blocks are grouped into macroblocks, and the filter is arranged to filter the image macroblock by macroblock according to a certain macroblock scanning order.

66.-67. (Cancelled).

68. (Previously Presented) An encoder according to claim 65, the encoder further arranged to encode and subsequently decode the image blocks of a macroblock in a certain block scanning order.

69. (Cancelled).

70. (Previously Presented) An encoder according to claim 65, wherein the filter is arranged to operate immediately after the first image block is decoded.

71. (Previously Presented) An encoder according to claim 65, wherein the filter is arranged to operate due to more than one boundary between the first decoded

image block and previously decoded image blocks adjacent to the first decoded image blocks.

72. (Previously Presented) An encoder according to claim 71, wherein the filter is further arranged operate due to more than one boundary by filtering the boundaries sequentially in a certain boundary scanning order.

73. (Previously Presented) An encoder according to claim 58, wherein the digital image comprises a plurality of segments of image blocks and the filter is arranged to operate due to boundaries between adjacent decoded image blocks that belong to the same segment.

74.-75. (Cancelled).

76. (Previously Presented) A decoder for decoding an encoded digital image comprising a plurality of encoded image blocks, the decoder configured to:

decode a first encoded image block to form a first decoded image block;

the decoder comprising a filter arranged to perform a filtering operation across a block boundary between the first decoded image block and a previously decoded image block adjacent to the first decoded image block, such that pixel value of at least one decoded pixel in the first decoded image block is modified by the filtering operation; and

the decoder further configured to perform a prediction for at least one pixel value of a second block, the second block adjacent to the first decoded image block, wherein the prediction is performed based on the modified pixel value of the first block by the filtering operation.

77. (Previously Presented) A decoder according to claim 76, wherein the decoder is configured to decode the first image block by performing motion compensated prediction with respect to a reference image.

78. (Previously Presented) A decoder according to claim 76, wherein the decoder is configured to decode the first encoded image block by performing a prediction with reference to a previously decoded image block adjacent to the first block.

79. (Previously Presented) A decoder according to claim 76, wherein the filter is arranged to operate immediately after the first image block is decoded.

80. (Previously Presented) A decoder according to claim 76, wherein the filter is arranged to operate due to more than one boundary between the first decoded image block and previously decoded image blocks adjacent to the first decoded image block.

81. (Previously Presented) A decoder according to claim 80, wherein the filter is arranged to operate due to more than one boundary by filtering the boundaries sequentially in a certain boundary scanning order.

82. (Previously Presented) A decoder according to claim 76, wherein the filter is arranged to use the modified pixel value when filtering due to at least one other boundary between decoded image blocks.

83. (Previously Presented) A decoder according to claim 76, wherein the image blocks are grouped into macroblocks, each macroblock comprising a certain number of image blocks, and the filter is arranged to filter the image macroblock by macroblock according to a certain macroblock scanning order.

84.-85. (Cancelled)

86. (Previously presented) A decoder according to claim 83, wherein the decoder is further arranged to decode the encoded image blocks of a macroblock in a certain block scanning order.

87. (Previously Presented) A decoder according to claim 83, further arranged to decode all the encoded image blocks of a given macroblock in the macroblock

scanning order before decoding the encoded image blocks of the next macroblock in the macroblock scanning order.

88. (Previously Presented) A decoder according to claim 83, wherein the filter is arranged to operate immediately after the first encoded image block is decoded.

89. (Previously Presented) A decoder according to claim 88, wherein the filter is arranged to operate due to more than one boundary between the first decoded image block and previously decoded image blocks adjacent to the first decoded image block.

90. (Previously Presented) A decoder according to claim 89, wherein the filter is further arranged to operate due to more than one boundary by filtering the boundaries sequentially in a certain boundary scanning order.

91. (Previously Presented) A decoder according to claim 76, wherein the digital image comprises a plurality of segments of image blocks and the filter is arranged to operate due to boundaries between adjacent decoded image blocks that belong to the same segment.

92.-93. (Cancelled).

94. (Previously Presented) A terminal device comprising an encoder for encoding a digital image comprising a plurality of image blocks, the encoder configured to:

encode a first image block to form a first encoded image block;

decode the first encoded image block to form a first decoded image block;

perform a filtering operation across a block boundary between the first decoded image block and a previously decoded image block adjacent to the first decoded image block, such that the pixel value of at least one decoded

pixel in the first decoded image block is modified by the filtering operation; and

perform a prediction for at least one pixel value of a second block, the second block adjacent to the first decoded image block, wherein the prediction is performed based on the modified pixel value of the first block by the filtering operation.

95. (Previously presented) A terminal device according to claim 94, wherein the terminal device is a mobile terminal.

96. (Previously presented) A terminal according to claim 94, wherein the terminal device is a wireless terminal of a mobile communications system.

97. (Previously Presented) A storage medium comprising a computer program for operating a computer as an encoder for encoding a digital image comprising a plurality of image blocks, which are grouped into macroblocks, each macroblock comprising a certain number of image blocks, the computer program comprising:

program code for encoding a first image block to form a first encoded image block;

program code for decoding the first encoded image block to form a first decoded image block;

program code for implementing a filtering operation across a block boundary between the first decoded image block and a previously decoded image block adjacent to the first decoded image block, such that pixel value of at least one decoded pixel in the first decoded image block is modified by the filtering operation; and,

program code for performing a prediction for at least one pixel value of a second block, the second block adjacent to the first decoded image block,

wherein the prediction is performed based on the modified pixel value of the first block by the filtering operation.

98. (Previously Presented) A storage medium comprising a computer program for operating a computer as a decoder for decoding an encoded digital image, said encoded digital image comprising a plurality of encoded image blocks grouped into macroblocks, each macroblock comprising a certain number of image blocks, the computer program comprising:

program code for decoding a first encoded image block to form a first decoded image block;

program code for implementing a filtering operation across a block boundary between the first decoded image block and a previously decoded image block adjacent to the first decoded image block such that pixel value of at least one decoded pixel in the first decoded image block is modified by filtering operation; and

program code for performing a prediction for at least one pixel value of a second block, the second block adjacent to the first decoded image block, wherein the prediction is performed based on the modified pixel value of the first block by the filtering operation.

99. (Previously Presented) A method according to claim 52, wherein the digital image comprises a plurality of segments of image blocks and only boundaries between adjacent decoded image blocks that belong to the same segment are filtered.

100.-101. (Cancelled).

102. (Previously Presented) An encoder according to claim 65, wherein the digital image comprises a plurality of segments of image blocks and the filter is arranged

to operate due to boundaries between adjacent decoded image blocks that belong to the same segment.

103.-104. (Cancelled).

105. (Previously Presented) A decoder according to claim 83, wherein the digital image comprises a plurality of segments of image blocks and the filter is arranged to operate due to boundaries between adjacent decoded image blocks that belong to the same segment.

106.-107. (Cancelled).

108. (Previously Presented) A terminal device comprising an encoder for encoding a digital image comprising a plurality of image blocks which are grouped into macroblocks, each macroblock comprising a certain number of image blocks, the encoder configured to:

encode a first image block to form a first encoded image block;

decode the first encoded image block to form a first decoded image block;

perform a filtering operation across a block boundary between the first decoded image block and a previously decoded image block adjacent to the first decoded image block, such that pixel value of at least one decoded pixel in the first decoded image block is modified by the filtering operation; and

perform a prediction for at least one pixel value of a second block, the second block adjacent to the first decoded image block, wherein the prediction is performed based on the modified pixel value of the first block by the filtering operation.

109. (Previously presented) A terminal device according to claim 108, wherein the terminal device is a mobile terminal.

110. (Previously presented) A terminal according to claim 108, wherein the terminal device is a wireless terminal of a mobile communications system.

111. (Previously Presented) A terminal device comprising a decoder for decoding an encoded digital image, said encoded digital image comprising a plurality of encoded image blocks, the decoder configured to:

decode a first encoded image block to form a first decoded image block;

perform a filtering operation across a block boundary between the first decoded image block and a previously decoded image block adjacent to the first decoded image block, such that pixel value of at least one decoded pixel in the first decoded image block is modified by the filtering operation; and

perform a prediction for at least one pixel value of a second block, the second block adjacent to the first decoded image block, wherein the prediction is performed based on the modified pixel value of the first block by the filtering operation.

112. (Previously presented) A terminal device according to claim 111, wherein the terminal device is a mobile terminal.

113. (Previously presented) A terminal according to claim 111, wherein the terminal device is a wireless terminal of a mobile communications system.

114. (Previously Presented) A terminal device comprising a decoder for decoding an encoded digital image, said encoded digital image comprising a plurality of encoded image blocks grouped into macroblocks, each macroblock comprising a certain number of image blocks, the decoder configured to:

decode a first encoded image block to form a first decoded image block;

perform a filtering operation across a block boundary between the first decoded image block and a previously decoded image block adjacent to the

first decoded image block such that pixel value of at least one decoded pixel in the first decoded image block is modified by the filtering operation; and

perform a prediction for at least one pixel value of a second block, the second block adjacent to the first decoded image block, wherein the prediction is performed based on the modified pixel value of the first block by the filtering operation.

115. (Previously presented) A terminal device according to claim 114, wherein the terminal device is a mobile terminal.

116. (Previously presented) A terminal according to claim 114, wherein the terminal device is a wireless terminal of a mobile communications system.

117. (Cancelled)

118. (Previously Presented) A method according to claim 40, wherein the prediction operation further comprises performing a prediction for at least one other pixel value of the second block based on a modified pixel value of a third block, the third block adjacent to the second image block, the modified pixel values of the third block obtained by a filtering operation performed across a block boundary between the third decoded image block and a previously decoded image block adjacent to the third block.

119. (Previously Presented) An encoder according to claim 58, wherein the encoder is further configured to perform a prediction for at least one other pixel value of the second block based on a modified pixel value of a third block, the third block adjacent to the second image block, the modified pixel values of the third block obtained by a filtering operation performed across a block boundary between the third decoded image block and a previously decoded image block adjacent to the third block.

120. (Previously Presented) A decoder according to claim 76, wherein the decoder is further configured to perform a prediction for at least one other pixel value of the second block based on a modified pixel value of a third block, the third block adjacent to the second image block, the modified pixel values of the third block obtained by a filtering operation performed across a block boundary between the third decoded image block and a previously decoded image block adjacent to the third block.

121. (Previously Presented) A method of decoding an encoded digital image comprising a plurality of image blocks, the method comprising:

decoding a first image block;

performing a filtering operation across a block boundary between the first decoded image block and a previously decoded image block such that the pixel value of at least one decoded pixel in the first decoded image block is modified by the filtering operation; and

performing a prediction for at least one pixel value of a second block, the second block adjacent to the first decoded image block, wherein the prediction is performed based on the modified pixel value of the first block by the filtering operation.

122. (Previously Presented) A method according to claim 121, wherein the decoding of the first image block comprises performing motion compensated prediction with respect to a reference image.

123. (Previously Presented) A method according to claim 121, wherein the decoding of the first image block comprises performing prediction with reference to a previously coded image block adjacent to the first block.

124. (Previously Presented) A method according to claim 121, wherein the filtering operation across the boundary between the first decoded image block and the

previously decoded image block is performed immediately after the first image block is decoded.

125. (Previously Presented) A method according to claim 121, wherein the filtering operation across the boundary between the first decoded image block and the previously decoded image block is performed immediately before performing the prediction for the second block.

126. (Previously Presented) A method according to claim 121, wherein the filtering operation is performed due to more than one boundary between the first decoded image block and previously decoded image blocks adjacent to the first decoded image block.

127. (Previously Presented) A method according to claim 121, wherein the prediction operation further comprises performing a prediction for at least one other pixel value of the second block based on a modified pixel value of a third block, the third block adjacent to the second image block, the modified pixel values of the third block obtained by a filtering operation performed across a block boundary between the third decoded image block and a previously decoded image block adjacent to the third block.

128. (Previously Presented) A method according to claim 121, wherein the image blocks are grouped into macroblocks, and the filtering operation between the first decoded image block and the previously decoded image block is performed for all boundaries within a macroblock before filtering is performed within the next macroblock in the scanning order.

129. (Previously Presented) A method according to claim 121, wherein the digital image comprises a plurality of segments of image blocks and the filtering is performed due to boundaries between adjacent decoded image blocks that belong to the same segment.

130. (Previously Presented) An encoder for encoding a digital image comprising a plurality of image blocks, the encoder comprising:

means for encoding a first image block to form a first encoded image block;

means for decoding the first encoded image block to form a first decoded image block;

means for performing a filtering operation across a block boundary between the first decoded image block and a previously decoded image block adjacent to the current decoded image block, such that pixel value of at least one decoded pixel in the first decoded image block is modified by the filtering operation; and

means for performing a prediction for at least one pixel value of a second block, the second block adjacent to the first decoded image block, wherein the prediction is performed based on the modified pixel value of the first block by the filtering operation.

131. (Previously Presented) A decoder for decoding an encoded digital image comprising a plurality of encoded image blocks, the decoder comprises:

means for decoding a first encoded image block to form a first decoded image block;

means for performing a filtering operation across a block boundary between the first decoded image block and a previously decoded image block adjacent to the first decoded image block, such that pixel value of at least one decoded pixel in the first decoded image block is modified by the filtering operation; and

means for performing a prediction for at least one pixel value of a second block, the second block adjacent to the first decoded image block, wherein

the prediction is performed based on the modified pixel value of the first block by the filtering operation.